

## ABSTRACT

The system for determining the absolute angular position  $\theta$  of a steering wheel (1) of a motor vehicle with respect to the chassis thereof comprises a device for incrementally measuring the relative angular position  $\delta$  of the steering wheel, a device (2) for measuring the differential velocity  $\Delta V/V$  of the wheels mounted on the same axle and a processing device (8) for sampling the angular positions and differential velocities at a period  $t$ . Said device comprises computing means suitable to determine at moments  $t_n$  : the estimate  $\theta^*(t_n)$  of an absolute angular position  $\theta(t_n)$  according to the differential velocity  $\Delta V/V$ , the mean difference offset  $\text{offset}(t_n)$  between the angular positions  $\theta^*(t_n)$  and  $\delta(t_i)$ , wherein  $i$  is a variant ranging from 0 to  $n$  and the absolute angular position  $\theta(t_n)$  by the addition between the mean difference offset  $\text{offset}(t_n)$  and the angular position  $\delta(t_n)$ .